

ABSTRACT

An insect lure and trap system includes a valve that receives a gaseous fuel, and provides a regulated flow of gaseous fuel. The regulated flow of gaseous fuel is input to an exothermic reactor that generates carbon dioxide to attract insects to a predetermined region, where a generated airflow forces insects within the predetermined region into a container. A temperature sensor senses the temperature of the carbon dioxide and provides a carbon dioxide temperature signal indicative thereof to a controller, which generates a valve command signal that regulates the valve in response to the carbon dioxide temperature signal. Advantageously, operating closed loop on catalyst temperature (i.e., gas temperature measured at the catalyst) allows for a more efficient use of the fuel, which is used to generate the CO₂ attractant.